

**IN THE CLAIMS**

**Listing of Claims:**

The following listing of Claims will replace all prior listings of Claims in the application.  
Following amendments, Claims 1-15 will be pending in the application.

Claim 1 is currently amended.

Claims 2-9 were previously presented.

Claims 10-15 have been added.

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1. (currently amended) A method for manufacturing a guidewire having a substantially cylindrical mandrel, said mandrel having one or more segments each having a diameter not exceeding a maximal diameter, the method comprising:  
providing a wire of diameter greater than the maximal diameter; and  
reducing the diameter of the wire to less than the maximal diameter such that a mandrel is obtained whose diameter is less than the maximal diameter over substantially the entire length of the mandrel;  
wherein the wire is made from stainless steel or titanium.
  2. (previously presented) The method of Claim 1, wherein step of reducing comprises center-less grinding.
  3. (previously presented) The method of Claim 1, further comprising the step of coating at least a portion of the mandrel with a hydrophobic coating.
  4. (previously presented) The method of Claim 1, further comprising the step of affixing a coil to the mandrel.
  5. (previously presented) The method of Claim 4, wherein the coil is radiopaque.

6. (previously presented) The method of Claim 1, wherein the step of providing comprises unwinding the wire from a spool.

7. (previously presented) The method of Claim 6, further comprising the step of straightening the unwound wire.

8. (previously presented) The method of Claim 1, further comprising coating the mandrel with a lubricious coating.

9. (previously presented) The method of Claim 8, wherein the lubricious coating is applied to all but a proximal portion of the mandrel.

10. (new) A method for manufacturing a guidewire having a distal and a proximal end and a preselected length L between said distal and proximal ends, and having one or more segments having one or more preselected diameters along its preselected length, comprising

a) providing a cylindrical feed wire, selected from a stainless steel wire and a titanium wire, from a spool, said feed wire having a uniform diameter  $D_i$  along its initial length;

b) straightening a portion of said feed wire at least equal in length to L to provide a straightened portion of wire of at least length L;

c) cutting the straightened wire to provide a straightened wire segment of at least length L;

d) center-less grinding said straightened wire segment over at least a continuous length L so as to provide a product wire having one or more segments along length L, each segment having a diameter smaller than  $D_i$ , subject to the proviso that if more than one segments are present having more than one diameter these more than one diameters are all smaller than  $D_i$ , and these more than one diameters are arranged with a largest diameter at the proximal end and a smallest diameter at the distal end; and

e) if needed, trimming the length of the product wire to the preselected length.

11. (new) A method for manufacturing a guidewire having a distal and a proximal end and a preselected length  $L$  between said distal and proximal ends, and additionally having one or more segments having one or more preselected diameters along preselected length  $L$ , the method comprising the steps of:

- a) obtaining from a spool a cylindrical feed wire of uniform initial diameter  $D_i$  and of at least length  $L$ , wherein the feed wire is selected from a stainless steel wire and a titanium wire;
- b) straightening at least length  $L$  of the feed wire;
- c) cutting the straightened feed wire to at least length  $L$ ;
- d) center-less grinding all of the straightened feed wire of at least length  $L$ , so as to provide a mandrel having one or more segments along length  $L$ , each segment having a diameter smaller than  $D_i$ , and wherein the one or more segments are arranged in order of increasing diameter, wherein segments of smaller diameter are positioned at the distal end of the straightened feed wire and segments of larger diameter are positioned at the proximal end of the straightened feed wire;
- e) if needed, trimming the length of the product wire to the preselected length  $L$ .

12. (new) The method of Claim 11, comprising the additional step of providing a helical coil, wound over the distal portion of the mandrel.

13. (new) The method of Claim 11, comprising, between steps (d) and (e), the additional step of providing a helical coil, wound over the distal portion of the mandrel.

14. (new) The method of Claim 11, further comprising the step of treating the guidewire with a lubricious compound.

15. (new) The method of Claim 14, wherein the lubricious compound is Teflon.

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